

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 1 and 4, add claim 21 and amend claims 2-5, 8, 14, 17, and 20 as follows:

1. (Canceled)

2. (Currently Amended) The method of claim 21, further comprising:

measuring the coexistent gas component using FTIR; and

directly applying resulting data from the correcting calculations.

3. (Currently Amended) The method of claim 21, further comprising:

measuring the coexistent gas component using a method other than FTIR; and

using an external analyzer to read resulting data from the correcting calculations, wherein time matching is performed by a CPU of the FTIR.

4. (Canceled)

5. (Currently Amended) The method of claim 21, wherein the correcting step corrects influences of coexistent H₂O with respect to CO, CO₂, NO, and N₂O.

6. (Original) The method of claim 5, wherein the influence is approximated by a linear equation for a fixed H₂O concentration.

7. (Original) The method of claim 5, wherein the influence is approximated by a quadratic equation for a fixed H₂O concentration.

8. (Currently Amended) The method of claim 21, wherein the correcting step corrects influences of coexistent H₂O with respect to CO.

9. (Original) The method of claim 8, wherein the influence is approximated

by a linear equation for a fixed H₂O concentration.

10. (Original) The method of claim 8, wherein the influence is approximated by a quadratic equation for a fixed H₂O concentration.

11. (Currently Amended) The method of claim 21, wherein the correcting step corrects influences of coexistent H₂O with respect to CO₂.

12. (Original) The method of claim 11, wherein the influence is approximated by a linear equation for a fixed H₂O concentration.

13. (Original) The method of claim 11, wherein the influence is approximated by a quadratic equation for a fixed H₂O concentration.

14. (Currently Amended) The method of claim 21, wherein the correcting step corrects influences of coexistent H₂O with respect to NO.

15. (Original) The method of claim 14, wherein the influence is approximated by a linear equation for a fixed H₂O concentration.

16. (Original) The method of claim 14, wherein the influence is approximated by a quadratic equation for a fixed H₂O concentration.

17. (Currently Amended) The method of claim 21, wherein the correcting step corrects influences of coexistent H₂O with respect to N₂O.

18. (Original) The method of claim 17, wherein the influence is approximated by a linear equation for a fixed H₂O concentration.

19. (Original) The method of claim 17, wherein the influence is approximated by a quadratic equation for a fixed H₂O concentration.

20. (Currently Amended) The method of claim 21, wherein the correcting step corrects influence caused by a difference in water concentration between exhaust

gases and a calibration gas and a change in H₂O concentration in a sample gas being measured.

21. (New) A multi-component gas analyzing method using FTIR, comprising:
quantitatively analyzing a plurality of components in a sample based upon an absorption spectrum obtained by FTIR;
calculating multi-component concentrations from a mixed gas spectrum by using a quantitative algorithm; and
after calculating the multi-component concentrations, correcting for an influence due to a difference in a base gas composition between and exhaust gas and a calibration gas.